

# 10-4 Skills Practice

## Inscribed Angles

In  $\odot S$ ,  $m\widehat{KL} = 80$ ,  $m\widehat{LM} = 100$ , and  $m\widehat{MN} = 60$ . Find the measure of each angle.

1.  $m\angle 1$

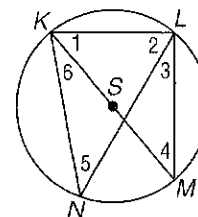
2.  $m\angle 2$

3.  $m\angle 3$

4.  $m\angle 4$

5.  $m\angle 5$

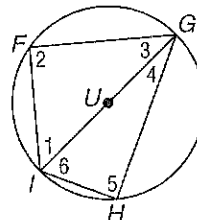
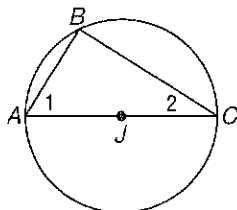
6.  $m\angle 6$



**ALGEBRA** Find the measure of each numbered angle.

7.  $m\angle 1 = 5x - 2$ ,  $m\angle 2 = 2x + 8$

8.  $m\angle 1 = 5x$ ,  $m\angle 3 = 3x + 10$ ,  
 $m\angle 4 = y + 7$ ,  $m\angle 6 = 3y + 11$



Quadrilateral  $RSTU$  is inscribed in  $\odot P$  such that  $m\widehat{STU} = 220$  and  $m\angle S = 95$ . Find each measure.

9.  $m\angle R$

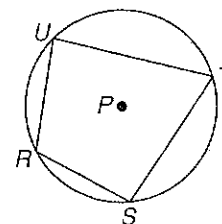
10.  $m\angle T$

11.  $m\angle U$

12.  $m\widehat{SRU}$

13.  $m\widehat{RUT}$

14.  $m\widehat{RST}$



# 10-4 Practice

## Inscribed Angles

In  $\odot B$ ,  $m\widehat{WX} = 104$ ,  $m\widehat{WZ} = 88$ , and  $m\angle ZWY = 26$ . Find the measure of each angle.

1.  $m\angle 1$

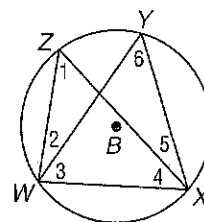
2.  $m\angle 2$

3.  $m\angle 3$

4.  $m\angle 4$

5.  $m\angle 5$

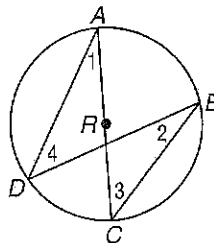
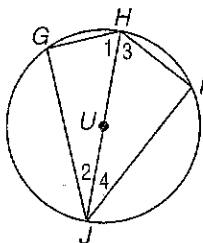
6.  $m\angle 6$



**ALGEBRA** Find the measure of each numbered angle.

7.  $m\angle 1 = 5x + 2$ ,  $m\angle 2 = 2x - 3$   
 $m\angle 3 = 7y - 1$ ,  $m\angle 4 = 2y + 10$

8.  $m\angle 1 = 4x - 7$ ,  $m\angle 2 = 2x + 11$ ,  
 $m\angle 3 = 5y - 14$ ,  $m\angle 4 = 3y + 8$



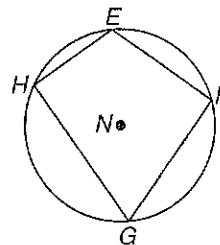
Quadrilateral  $EFGH$  is inscribed in  $\odot N$  such that  $m\widehat{FG} = 97$ ,  $m\widehat{GH} = 117$ , and  $m\widehat{EHG} = 164$ . Find each measure.

9.  $m\angle E$

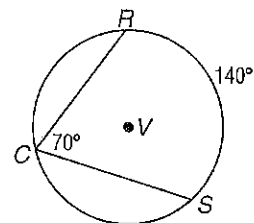
10.  $m\angle F$

11.  $m\angle G$

12.  $m\angle H$



**13. PROBABILITY** In  $\odot V$ , point  $C$  is randomly located so that it does not coincide with points  $R$  or  $S$ . If  $m\widehat{RS} = 140$ , what is the probability that  $m\angle RCS = 70$ ?

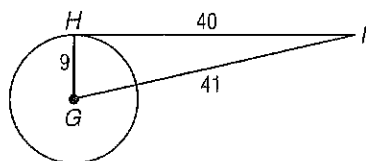


# 10-5 Skills Practice

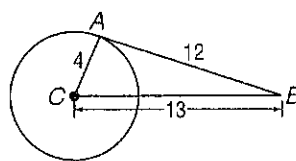
## Tangents

Determine whether each segment is tangent to the given circle.

1.  $\overline{HI}$

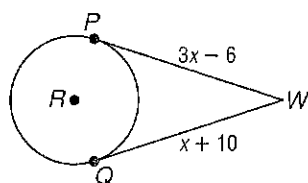


2.  $\overline{AB}$

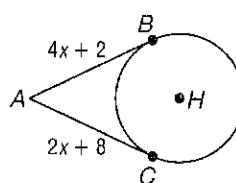


Find  $x$ . Assume that segments that appear to be tangent are tangent.

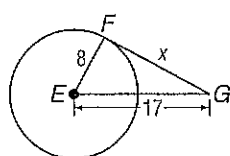
3.



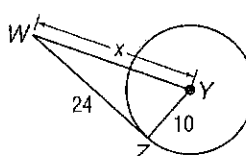
4.



5.

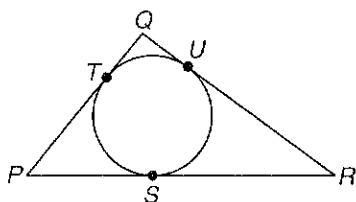


6.

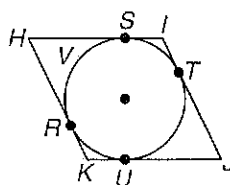


Find the perimeter of each polygon for the given information. Assume that segments that appear to be tangent are tangent.

7.  $QT = 4$ ,  $PT = 9$ ,  $SR = 13$



8.  $H I J K$  is a rhombus,  $SI = 5$ ,  $HR = 13$

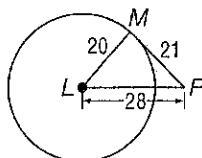


# 10-5 Practice

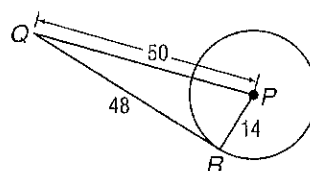
## Tangents

Determine whether each segment is tangent to the given circle.

1.  $\overline{MP}$

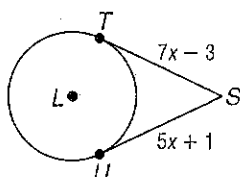


2.  $\overline{QR}$

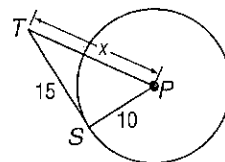


Find  $x$ . Assume that segments that appear to be tangent are tangent.

3.

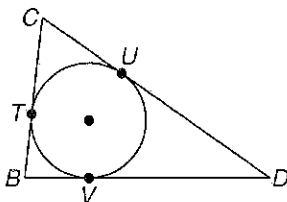


4.

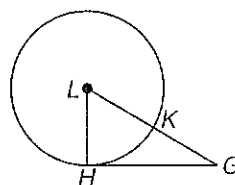


Find the perimeter of each polygon for the given information. Assume that segments that appear to be tangent are tangent.

5.  $CD = 52$ ,  $CU = 18$ ,  $TB = 12$

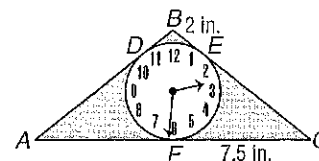


6.  $KG = 32$ ,  $HG = 56$



**CLOCKS** For Exercises 7 and 8, use the following information.

The design shown in the figure is that of a circular clock face inscribed in a triangular base.  $AF$  and  $FC$  are equal.



7. Find  $AB$ .

8. Find the perimeter of the clock.